Sarah F. Majors

(724) 683 - 5500 sfmajors373@gmail.com
Monroeville, Pennsylvania www.github.com/sfmajors373

PROFESSIONAL PROJECTS

AirSafetyData.org
- Collected data from the FAA pertainging to yearly flight hours per aircraft model and from the NTSB pertaining to aircraft accident data
- Ran statistical analyses on data to define a standard metric to compare the safety, determining accidents per 100,000 hours of flight was most accurate; calculated this for overall safety as well as in differing weather and light conditions
- Created and deployed a website in Golang to display the metrics, which were graphed using Matplotlib
- Recorded detailed methods regarding the statistical analysis to ensure reproducibility and accountability
- Created a bot to scrape the NTSB database and alert subscribed twitter users to when a final report was released
- Tech stack: Python, Jupyter Notebooks, Golang, SQL, Matplotlib

Nightingale Security
- Used the bug tracker to locate and correct bugs in the drone control UI, such as bounding area display errors
- Created last minute fixes for UX issues in time for product demonstrations
- Designed a feature to allow the user to create bounding boxes on images which were to be fed into a machine learning algorithm and then utilized by the drone
- Tech stack: JavaScript, PHP, AngularJS, GoogleMapsAPI, Git

Topographical Data Analysis
- Reverse engineered the recording of data from the total station
- Corrected errors in manual entry of information into the total station
- Utilized the data from the total station to make accurate 3D images of the topography
- Tech stack: QGIS, ROOT (Cern), Python, LaTeX

PERSONAL PROJECTS

Machine Learning
In Progress
- Completed and received certificate for the Deep Learning Specialization from deeplearning.ai covering deep neural networks, convolutional neural networks, sequence models and structuring machine learning projects
- Completed the Bertelsman Data Science Challenge Scholarship Course on Udacity
- Working to learn Linear Algebra through MIT OCW
- Tech stack: Python, Jupyter Notebooks, Tensorflow, Keras

Lambda School
Completed
- Completed the full time 6 month computer science course through Lambda School
- Tech stack: JavaScript, React, Express, Node.js, MongoDB, Docker, Kubernetes
- Currently taking an additional 5 week course specializing in Java backend
- Tech stack: Java, Spring, Maven, RabbitMQ, SQLite, Swagger

8-bit Computer
In Progress
- Building a primitive 8-bit computer with breadboards and LED's based on Ben Eater's video series
- Skills developed: Electrical Engineering, Computer Hardware Basics, Troubleshooting

Cookbook
In Progress
- Compile family recipes in LaTex cookbook
- Tech stack: LaTex, Git

WORK HISTORY

Contractor *February 2018 - present*
Data Analyst

Nightingale Security *November 2017 - January 2018*
Intern